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TITLE: Development and Validation of a Theory Based Screening Process for Suicide Risk

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| <p><b>14. ABSTRACT</b> The ultimate objective of this study is to assist in increasing the capacity of military-based health services to accurately identify persons at risk for suicide and to render effective referral dispositions. To do so we will characterize and evaluate the ability of a proposed suicide screening instrument and associated clinical decision-making algorithm to accurately identify at-risk individuals and provide appropriate treatment recommendations. Furthermore we will evaluate key theoretical questions related to distinguishing who is at most risk for actual suicide.</p> <p>Recruitment and primary data collection was completed on December 31, 2014. Our final recruitment was 1,381 participants, with 687 coming from Joint Base Lewis-McChord and 634 from Ft. Hood.</p> <p>Matching of participant research data to participant medical records was completed in February 2015, with an 87% match for JBLM participants and a 91% match from Ft. Hood participants. Utilizing the medical record data has been severely complicated by the fact that the PDHRA (form 2900) changed format during the study period, thus we do not have the same data fields for all participants. Current efforts center on merging the two forms into meaningful variables prior to final data analyses.</p> <p>Due to various factors that have delayed our progress, the data collection and analyses phase of our study could not be completed by our original contract end date. We have requested and received a second six month no-cost extension to complete the study in 2016.</p> |  |   |                                 |   |   |
| <b>15. SUBJECT TERMS</b><br>Suicide risk, military, Army, screening, interpersonal theory of suicide, decision-making algorithm   |  |   |                                 |   |   |
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## 1. INTRODUCTION

The ultimate objective of this study is to assist in increasing the capacity of military-based health services to accurately identify persons at risk for suicide and to render effective referral dispositions. To do so we will characterize and evaluate the ability of a proposed suicide screening instrument and associated clinical decision-making algorithm to accurately identify at-risk individuals and provide appropriate treatment recommendations. Furthermore we will evaluate key theoretical questions related to distinguishing who is at most risk for actual suicide.

## 2. KEYWORDS

Suicide risk, military, Army, screening, interpersonal theory of suicide, decision-making algorithm

## 3. OVERALL PROJECT SUMMARY

Accomplishing tasks in the time frame proposed in our original timeline has been challenging primarily due to the lower number of soldiers available to consent than previously anticipated at both JBLM and at Ft. Hood, the PDHRA scheduling changes due to sequestration-required furloughs at JBLM, and the unexpected cessation of access to soldiers at JBLM as an outcome of an unanticipated problem involving risks to subjects or others (UPIRTSO).

### A. Project Sites

Specific site status is described below:

#### JBLM

Data collection, which began in September 2012, continued through August 2013. The number of consented subjects was lower than anticipated in 2013 due to lower volumes of potential subjects being processed at the PDHRA clinic, and to the PDHRA Chief's decision to deny further recruitment after the occurrence of an UPIRTSO reported in August 2013.

#### Fort Hood

Data collection at Ft. Hood began in May of 2013 and completed in December 2014 Ft. Hood.

#### Merging of Research Data with Health Data

A key element of this project involves matching and merging data from our research questionnaires with electronic medical record data. Extracting the data from the Army's medical record system was a lengthy process for two reasons, first obtaining proper authorization to extract the data took considerable effort and time; and secondly, the medical form that was linked to this study (known as the PDHRA, or form 2900) changed over the course of the study. The change in the PDHRA continues to be our main focus at this point as we attempt to reconcile differences in variables and to come up with common and distinct analyses based on what variables we have and for which participants.

### B. Human Subjects Approvals

The original IRB application and consent forms indicated that participant data would be discarded at the end of 2014. Given the unforeseen and uncontrollable delays, we applied for and received a waiver to retain the study data until the end of 2017. However, after completing the data collection and matching with medical data, we have destroyed identifiable links to our data and closed the IRB at all institutions. Consent forms and original data research questionnaire forms are retained according to policies and procedures as dictated by the University of Washington in conformance with state of Washington and U.S. Federal guidelines and regulations.

#### Ft. Hood

On May 7, 2014, the UW IRB approved the addition of the Suicide Cognition Scale (SCS) as an additional item to the existing approved research questionnaire. This newer instrument was added to improve the quality of risk measurement. HRPO was informed of the requested change and agreed that the addition of the instrument did not potentially increase risk to subjects and therefore did not require HRPO approval. New questionnaire booklets were printed and administration of the augmented questionnaire began in June 2014.

### **C. Recruitment, consent & administration of initial screener and supplemental questionnaires**

### **D. Data Analyses**

We have begun this process on our preliminary data to accelerate final analytic procedures when we have the complete data set. We are approximately 70% complete in terms of code writing for planned analyses. We expect to be able to complete final data analyses by February 2016.

### **E. Report writing and dissemination**

We will complete these tasks once the analytic procedures are complete; although some manuscript writing will begin prior to the final data collection as our preliminary results are important and should not be delayed until all data have been collected. This is with particular respect to our data that confirms soldiers under report suicide ideation and that while they say that they would inform loved ones about suicidal thoughts, over 50% of soldiers who endorse ideation have not told anyone about it.

## **4. KEY RESEARCH ACCOMPLISHMENTS**

To be determined after the Data Collection and Data Analysis phases are complete.

## **5. CONCLUSION**

As we near completion of the data collection phase we are prepared to begin the data analysis and report writing tasks and are confident that we will be able to complete these tasks on time. The preliminary screening of the data indicates that we will be able to address the main goals of this study.

## **6. PUBLICATIONS, ABSTRACTS, AND PRESENTATIONS**

Initial data analyses and presentations at the American Association of Suicidology annual meeting, Atlanta, GA. 2015.

## **7. INVENTIONS, PATENTS AND LICENSES**

Nothing to report.

## **8. REPORTABLE OUTCOMES**

Nothing to report.

## **9. OTHER ACHIEVEMENTS**

Nothing to report

**REFERENCES: N/A**

**10. APPENDICES: N/A**